REMARKS

Claims 24-33 were previously rejected pursuant to 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,503,203 to Rafter et al. (hereinafter Rafter). In the Advisory Action, the Examiner indicated that the rejection of claim 31 was overcome.

Applicants request reconsideration of the rejections of claims 24-33, including independent claims 24 and 31. *New remarks are provided below in italics.*

Claim 24 is directed to a system for setting parameters for contrast agent medical imaging. Claim 24 recites "a processor operable to select different ones of the plurality of transmit sequences and of the plurality of transmit levels in response to a single input from the user input control, the single input for adjusting a transmit level for contrast agent response."

Rafter discloses an automated ultrasound system for performing image studies utilizing ultrasound contrast agents (see abstract). Rafter focuses on controlling an ultrasound system with plain English indications that need to be interpreted prior to execution of the ultrasound system (see col. 7, lines 25-30). A "simplified portion" of this model is shown by tables 1-10 (col. 7, lines 32-33). More specifically, each state is entered in separate state tables 1-5 (col. 7, lines 34-36). Next, the state tables are referenced in view tables 6-9 to provide an order for the state tables (col. 7, lines 35-37). Finally, a study table, such as table 10, is provided to collect the various views into stages of the study (col. 7, lines 43-55).

As shown in Fig. 2, Rafter discloses that the user enters preliminary information at step 204, sets initial imaging settings at step 208, and adjusts the image at step 214. Rafter discloses that the various settings may be modified by the user through this complicated procedure (col. 10, lines 15-37). There is no indication that Rafter teaches or suggests selecting from a plurality of transmit sequences and from a plurality of transmit levels in response to a single input.

In other words, Rafter discloses states that are viewed in sequences as part of a stress study. However, Rafter does not disclose a processor operable to select different ones of the

plurality of transmit sequences and of the plurality of transmit levels in response to a single input from the user input control.

The Examiner alleges that col. 10, lines 38-55 discloses use of the tables 1-10 in response to a single user input. However, the input at col. 10, lines 38-55 is not a single user input. A single input may initiate the stress study (col. 10, line 37). Automatic progression through the states of the state table may follow (col. 10, lines 38-54). To provide the state table through which automatic transition may occur, the user inputs preliminary information in act 204 and adjusts the image settings at step 212 (col. 7, lines 2-3; and col. 10, lines 19-24). These user adjustments for setting up the tables are in addition to the initiation input in act 216. Rafter provides for multiple user inputs to operate the imaging, so does not select different ones of the plurality of transmit sequences and of the plurality of transmit levels in response to a single input from the user input control.

In addition to failing to teach or suggest a processor operable to select transmit sequences and transmit levels, Rafter also does not disclose a single input, in response to which the transmit sequences and transmit levels are selected. The Office Action submits that a button is disclosed (page 2). However, the button is for outputting a signal (the so-called impulse) that disrupts contrast agents (col. 7, lines 41). Further, the impulse activated by the button is shown in Table 4 and includes only one type of signal. The signal does not vary at all with respect to transmit sequence or transmit level.

Therefore, Rafter does not teach or suggest a processor operable to select different ones of the plurality of transmit sequences and of the plurality of transmit levels in response to a single input from the user input control, the single input for adjusting a transmit level for contrast agent response.

Rafter sequences through states corresponding to many different settings (see Tables 1-5). Two of the example states even have the same MI (see tables 1 and 3), so the user input of Rafter is not for adjusting the transmit level.

The user initiates this state sequence with the input (col. 10, line 37). This input is to initiate the stress study, not to change the transmit level. Rafter does not disclose selection in response to a single input for adjusting transmit level.

Claim 24 has been further amended to clarify these differences. Claim 24 recites that the single input for adjusting the transmit level is during imaging and the processor is operable to select during the imaging. This adjustment, and the resulting processor selection, are performed during imaging. Rafter sets up the states and state table prior to initiation. After initiation, Rafter merely provides for the user to indicate completion of a state or to acknowledge that advancement to the next state is allowed (col. 10, lines 41-54). Rafter does not provide for the single input to be during the imaging, and does not provide for user input adjusting of the transmit level during imaging.

Claim 24 recites that the processor is operable to select the different ones of the plurality of transmit sequences and of the plurality of transmit levels based on alteration of the transmit level received from the user input control. Rafter provides for selection of different states and configuration of each state. However, these settings are not based on alteration of the transmit level.

Claim 24 recites that the selection corresponds to altering the transmit level without altering the transmit sequence for one of the adjusting of the transmit level and corresponding to altering the transmit level and transmit sequence for another of the adjusting of the transmit level. Rafter provide different states, some of which have different transmit levels. The order of progression through the states is provided by the selected state diagram (col. 7, lines 7-14). The different states have different MIs except for two with a same MI (see tables 1-5). The two different states with the same MI have different transmit sequences (see tables 1 and 3). Rafter is concerned with progressing through a sequence of different states in a stress study, not providing user adjustment of transmit level mapped, only in some cases, to different transmit sequences. Rafter does not provide changes in transmit level using a same transmit sequence and other changes in transmit level corresponding to different transmit sequences and the transmit level.

Claim 24 recites each transmit level being distinct and associated with one of the transmit sequences, and at least some of the transmit levels associated with a same one of the transmit sequences and at least some of the transmit levels associated with different ones of the transmit sequences. Rafter provides a stress study, not using transmit level to select different transmit levels in some cases and different transmit levels and transmit sequences in other cases.

For these reasons, Applicants respectfully request that the rejection of claims 24 be withdrawn. Accordingly, because claims 25-33 depend on claim 24, the rejection of claims 25-33 should also be withdrawn.

Claims 24-33 stand rejected pursuant to 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,503,203 in view of In re Casey, 370 F.2d 576, 152 USPQ 235 (CCPA 1967).

The M.P.E.P. does not provide for any type of rejection made "in view of" a court decision. Further, rejections under 35 U.S.C. §102(e) should not be made "in view of" anything. Nonetheless, in the interests of furthering prosecution of the application, the following remarks are provided.

The Office Action asserts that "operable" is functional language and "a processor, operable for performing a task, merely defines the claim as a "processor capable of performing the task" which could very well be any computer processor" (page 3).

Applicants dispute the broad assertions of the Office Action. *In Re Casey* involved the claim language "said brush being formed with projecting bristles which terminate in free ends to collectively define a surface which adhesive tape will detachably adhere." The prior art did not disclose adhesive tape but the court found that the prior art surface is one to which adhesive tape will detachably adhere. *In re Casey*, 152 USPQ, at 238.

In re Casey recognizes that there are surfaces not capable of adhering to adhesive tape and those are found outside of the scope of the claim. Likewise, claim language directed to a processor operable to select different ones of the plurality of transmit sequences and of the

plurality of transmit levels, does not include all processors but only those, based on the instructions contained therein, that are capable of performing the claimed functions.

As addressed above, Rafter does not teach or suggest a processor operable to select different ones of the plurality of transmit sequences and of the plurality of transmit levels in response to a single input from the user input control, the single input for adjusting a transmit level for contrast agent response.

For these reasons, Applicants respectfully request that the rejection of claims 24 be withdrawn. Accordingly, because claims 25-33 depend on claim 24, the rejection of claims 25-33 should also be withdrawn.

Claim 27

Claim 27 recites "wherein the table includes settings for each of the transmit levels of transmit modulation frequency, transmit bandwidth, transmit coding, number of transmit foci per scan line, number of transmit pulses per scan line, number of transmitted lines per image, time between transmissions, velocity scale, reverberation-suppression pulses, receive bandwidth, receive demodulation frequency and combinations thereof."

Rafter does not disclose a table that includes settings for each of the above values. Applicants respectfully submit that Rafter, taken alone or in view of *In re Casey*, cannot anticipate claim 27. Therefore, the rejection of claim 27 should be withdrawn.

The Examiner points out the various settings shown in tables 1-5. However, these settings are not provided for each of the transmit levels. Rafter provides settings by imaging state, not by transmit level.

Claim 28

Claim 28 recites "wherein the processor is operable to obtain a measure of the contrast agent response and automatically select at least one of the different one of (i) the plurality of transmit sequences and (ii) of the plurality of transmit levels in response to the measure."

Rafter does not teach or suggest automatically selecting a transmit sequence of transmit level in response to a measure of the contrast agent response. Applicants respectfully submit that Rafter, taken alone or in view of *In re Casey*, cannot anticipate claim 28. Therefore, the rejection of claim 28 should be withdrawn.

Claim 31

Claim 31 has been amended into independent form. The Examiner indicated that the claim arguments overcame the rejection, so allowance is requested.

Claim 31 recites "a low, a medium and a high transmit level, and wherein the processor is operable to select settings of: for the low transmit level, the transmit sequence having multiple pulses with at least one of different amplitudes and phases, the transmit modulation being low and the receive demodulation frequency being medium; for the medium transmit level, the transmit sequence having multiple pulses with at least one of different amplitudes and phases, the transmit modulation being medium and the receive demodulation frequency being high; and for the high transmit level, the transmit sequence having multiple pulses with all pulses having one of a same amplitude and a same phase, the transmit modulation being high and the receive demodulation frequency being low."

Rafter does not disclose a processor operable to select settings for three transmit levels. Applicants respectfully submit that Rafter, taken alone or in view of *In re Casey*, cannot anticipate claim 31. Therefore, the rejection of claim 31 should be withdrawn.

Claim 33

Claim 33 recites "the processor is operable to set the transmit level as one of at least a low and a high transmit level, allow acquisition of velocity information in addition to contrast agent detection for the low transmit level, allow velocity scale adjustment for the low transmit level, and preventing acquisition of velocity information in addition to contrast agent detection for the high transmit level."

Rafter does not teach or suggest velocity scale adjustment. Applicants respectfully submit that Rafter, taken alone or in view of *In re Casey*, cannot anticipate claim 33. Therefore, the rejection of claim 33 should be withdrawn.

CONCLUSION:

Applicants respectfully submit that all of the pending claims are in condition for allowance and seeks early allowance thereof.

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